human CAP-1

```
                                                                  60
MLSHNTMMKQRKQQATAIMKEVHGNDVDGMDLGKKVSIPRDIMLEELSHLSNRGARLFKM

                                                                 120
RQRRSDKYTFENFQYQSRAQINHSIAMQNGKVDGSNLEGGSQQAPLTPPNTPDPRSPPNP

                                                                 180
DNIAPGYSGPLKEIPPEKFNTTAVPKYYQSPWEQAISNDPELLEALYPKLFKPEGKAELP

                                                                 240
DYRSFNRVATPFGGFEKASRMVKFKVPDFELLLLTDPRFMSFVNPLSGRRSFNRTPKGWI

SENIPIVITTEPTDDTTVPESEDL
```

FIG. 1A

mouse CAP-1

```
                                                                  60
MLSHSAMVKQRKQQASAITKEIHGHDVDGMDLGKKVSIPRDIMIEELSHFSNRGARLFKM

                                                                 120
RQRRSDKYTFENFQYESRAQINHNIAMQNGRVDGSNLEGGSQQGPSTPPNTPDPRSPPNP

                                                                 180
ENIAPGYSGPLKEIPPERFNTTAVPKYYRSPWEQAIGSDPELLEALYPKLFKPEGKAELR

                                                                 240
DYRSFNRVATPFGGFEKASKMVKFKVPDFELLLLTDPRFLAFANPLSGRRCFNRAPKGWV

SENIPVVITTEPTEDATVPESDDL
```

FIG. 1B

#3

human CAP-2

```
                                                                  60
MPLSGTPAPNKKRKSSKLIMELTGGGQESSGLNLGKKISVPRDVMLEELSLLTNRGSKMF

                                                                 120
KLRQMRVEKFIYENHPDVFSDSSMDHFQKFLPTVGGQLGTAGQGFSYSKSNGRGGSQAGG

                                                                 180
SGSAGQYGSDQQHHLGSGSGAGGTGGPAGQAGRGGAAGTAGVGETGSGDQAGGEGKHITV

                                                                 240
FKTYISPWERAMGVDPQQKMELGIDLLAYGAKAELPKYKSFNRTAMPYGGYEKASKRMTF

QMPKFDLGPLLSEPLVLYNQNLSNRPSFNRTPIPWLSSGEPVDYNVDIGIPLDGETEEL
```

FIG. 1C

mouse CAP-2

```
                                                                  60
MPLSGTPAPNKRRKSSKLIMELTGGGRESSGLNLGKKISVPRDVMLEELSLLTNRGSKMF

                                                                 120
KLRQMRVEKFIYENHPDVFSDSSMDHFQKFLPTVGGQLETAGQGFSYGKGSSGGQAGSSG

                                                                 180
SAGQYGSDRHQQGSGFGAGGSGGPGGQAGGGGAPGTVGLGEPGSGDQAGGDGKHVTVFKT

                                                                 240
YISPWDRAMGVDPQQKVELGIDLLAYGAKAELPKYKSFNRTAMPYGGYEKASKRMTFQMP

KFDLGPLLSEPLVLYNQNLSNRPSFNRTPIPWLSSGEHVDYNVDVGIPLDGETEEL
```

FIG. 1D

```
mCAP-1     M L S H S A M V K Q R K Q Q A S A I T K E I H G H D V D G M D L G K K V S I
mCAP-2   M P L S G T P A P N K R R K S S K L I M E L T G G G R E S S G L N L G K K I E V

mCAP-1   P R D I H I E L L D H F S N R Q A R L F K M R Q R R S D K Y T F E H F - - - - -
mCAP-2   P R D V K L E L L D L L T N R Q S K M P K L R Q M R V E K F I Y E K H P D V F S

mCAP-1   - - - - - - - - - - - - - - - - Q Y E S R A Q I N H N I A M Q N G R V D G S N L
mCAP-2   D S S M D H F Q K F L P T V G G Q L E T A G Q G F S Y G K G S S G G Q A G S S G

mCAP-1   E G G S - - - - - - Q Q G P S T P P N T P D P R S P P N P E N I A P G Y S G P L
mCAP-2   S A G Q Y G S D R H Q Q G S G F G A G G S G G P G G Q A G G G G A P G T V G L G

mCAP-1   K E I P P E R F N T - - - - T A V P K Y Y R S P D E Q A I G S D P E L L E A L Y
mCAP-2   E P G S G D Q A G G D G K H V T V F K T M I S P V D R A M G V D P Q Q K V E L G

mCAP-1   P K L F K P E G K A Y L R D Y R S F N R V A T P F G Q F E K A G K M V K F K V P
mCAP-2   I D L L A Y G A K A Y L P K Y K S P N R T A M P Y G Q Y E K A G K R M T F Q M P

mCAP-1   D F E L L L L T D P R F L A F A N P L S G R R C F N R A P K G H V S E N I P V V
mCAP-2   K F D L G P L L S E P L V L Y N Q N L S N R P S F N R T P I P H L S S G E H V D

mCAP-1   I T T E P T E D A T V P E S D D L
mCAP-2   Y N V D - V G I P L D G E T E E L
```

FIG. 1E

human CAP-1

```
       10        20        30        40        50        60        70        80        90       100
GTCCCAGGTTCAAGGATAAAAACCATCAGGCCCAAGTGCCATCCATAGTCCATCTCCAGAGTCTTCCTCCACAAACTGGGATTCATCCCCGCTGAAAAAG
CAGGGTCCAAGTTCCTATTTTTGGTAGTCCGGGTTCACGGTAGGTATCAGGTAGAGGTCTCAGAAGGAGGTGTTTGACCCTAAGTAGGGGCGACTTTTTC

      110       120       130       140       150       160       170       180       190       200
CACAATCTAACAGCAAGGGAACAAAAAAACCATGCTATCACATAATACTATGATGAAGCAGAGAAAACAGCAAGCAACAGCCATCATGAAGGAAGTCCAT
GTGTTAGATTGTCGTTCCCTTGTTTTTTTGGTACGATAGTGTATTATGATACTACTTCGTCTCTTTTGTCGTTCGTTGTCGGTAGTACTTCCTTCAGGTA

      210       220       230       240       250       260       270       280       290       300
GGAAATGATGTTGATGGCATGGACCTGGGCAAAAAGGTCAGCATCCCCAGAGACATCATGTTGGAAGAATTATCCCATCTCAGTAACCGTGGTGCCAGGC
CCTTTACTACAACTACCGTACCTGGACCCGTTTTTCCAGTCGTAGGGGTCTCTGTAGTACAACCTTCTTAATAGGGTAGAGTCATTGGCACCACGGTCCG

      310       320       330       340       350       360       370       380       390       400
TATTTAAGATGCGTCAAAGAAGATCTGACAAATACACATTTGAAAATTTCCAGTATCAATCTAGAGCACAAATAAATCACAGTATTGCTATGCAGAATGG
ATAAATTCTACGCAGTTTCTTCTAGACTGTTTATGTGTAAACTTTTAAAGGTCATAGTTAGATCTCGTGTTTATTTAGTGTCATAACGATACGTCTTACC

      410       420       430       440       450       460       470       480       490       500
GAAAGTGGATGGAAGTAACTTGGAAGGTGGTTCGCAGCAAGCCCCCTTGACTCCTCCCAACACCCCAGATCCACGAAGCCCTCCAAATCCAGACAACATT
CTTTCACCTACCTTCATTGAACCTTCCACCAAGCGTCGTTCGGGGGAACTGAGGAGGGTTGTGGGGTCTAGGTGCTTCGGGAGGTTTAGGTCTGTTGTAA

      510       520       530       540       550       560       570       580       590       600
GCTCCAGGATATTCTGGACCACTGAAGGAAATTCCTCCTGAAAAATTCAACACCACAGCTGTCCCTAAGTACTATCAATCTCCCTGGAGCAAGCCATTA
CGAGGTCCTATAAGACCTGGTGACTTCCTTTAAGGAGGACTTTTTAAGTTGTGGTGTCGACAGGGATTCATGATAGTTAGAGGGACCTCGTTCGGTAAT

      610       620       630       640       650       660       670       680       690       700
GCAATGATCCGGAGCTTTTAGAGGCTTTATATCCTAAACTTTTCAAGCCTGAAGGAAAGGCAGAACTGCCTGATTACAGGAGCTTTAACAGGGTTGCCAC
CGTTACTAGGCCTCGAAAATCTCCGAAATATAGGATTTGAAAAGTTCGGACTTCCTTTCCGTCTTGACGGACTAATGTCCTCGAAATTGTCCCAACGGTG

      710       720       730       740       750       760       770       780       790       800
ACCATTTGGAGGTTTTGAAAAAGCATCAAGAATGGTTAAATTTAAAGTTCCAGATTTTGAGCTACTATTGCTAACAGATCCCAGGTTTATGTCCTTTGTC
TGGTAAACCTCCAAAACTTTTTCGTAGTTCTTACCAATTTAAATTTCAAGGTCTAAAACTCGATGATAACGATTGTCTAGGGTCCAAATACAGGAAACAG

      810       820       830       840       850       860       870       880       890       900
AATCCCCTTTCTGGCAGACGGTCCTTTAATAGGACTCCTAAGGGATGGATATCTGAGAATATTCCTATAGTGATAACAACCGAACCTACAGATGATACCA
TTAGGGGAAAGACCGTCTGCCAGGAAATTATCCTGAGGATTCCCTACCTATAGACTCTTATAAGGATATCACTATTGTTGGCTTGGATGTCTACTATGGT

      910       920       930       940       950       960       970       980       990      1000
CTGTACCAGAATCAGAAGACCTATGAAAAGAAAGTTGTATGTGCCACATAAAACTCTGAATATAAAAGTTGCTGTTCTACTATTTTAACTACTGGCAAAG
GACATGGTCTTAGTCTTCTGGATACTTTTCTTTCAACATACACGGTGTATTTTGAGACTTATATTTTCAACGACAAGATGATAAAATTGATGACCGTTTC

     1010      1020      1030      1040      1050      1060      1070      1080      1090      1100
CACTTGCATTTTTCATTAGTAGCAACAATAGCAATTTAGTGATTTTCCTTTTCTGACATTCAATTTCAATCTCAGATCAAATACTAATAAACAATTAGAA
GTGAACGTAAAAAGTAATCATCGTTGTTATCGTTAAATCACTAAAAGGAAAAGACTGTAAGTTAAAGTTAGAGTCTAGTTTATGATTATTTGTTAATCTT

     1110      1120      1130      1140      1150      1160      1170      1180      1190      1200
ATCTTACTTTAAAAAACTTATAACTCACTTGTCTTCATTCATAATTTTGTTTTCACCTGGTTTAAAGAATCCAGATATTTTACTGCAAAAGTTCAGATGG
TAGAATGAAATTTTTTGAATATTGAGTGAACAGAAGTAAGTATTAAAACAAAAGTGGACCAAATTTCTTAGGTCTATAAAATGACGTTTTCAAGTCTACC

     1210      1220      1230      1240      1250      1260      1270      1280      1290      1300
AAAAGTAATTGACAGCTTCACCTTTGTCTCATTTTATATGATTTATTACAGTGTAAGTTTTTCAAGTGGAATCTAGAATCAAAATACAGGGAGAGATATG
TTTTCATTAACTGTCGAAGTGGAAACAGAGTAAAATATACTAAATAATGTCACATTCAAAAAGTTCACCTTAGATCTTAGTTTTATGTCCCTCTCTATAC

     1310      1320      1330      1340      1350      1360      1370      1380      1390      1400
AAGACCTATTCAGAGTTTCATCTGGGGATGAAAGCTATGGAAGATGATGTACAAATGTTATTGATGGAGAAAATGGTTGGTGTGTCCTTTCTGGTGACCA
TTCTGGATAAGTCTCAAAGTAGACCCCTACTTTCGATACCTTCTACTACATGTTTACAATAACTACCTCTTTTACCAACCACACAGGAAAGACCACTGGT

     1410      1420      1430      1440      1450      1460      1470      1480      1490      1500
TGAGAAAATAATATGTCTTGATGAAGTCTTTTCATTAGTCACTCTTAGAATTCTAAAGTGCTTTGCACTTTTCAATATGTTTTGAATCATTAGGTAATTT
ACTCTTTTATTATACAGAACTACTTCAGAAAAGTAATCAGTGAGAATCTTAAGATTTCACGAAACGTGAAAAGTTATACAAAACTTAGTAATCCATTAAA

     1510      1520      1530      1540      1550      1560      1570      1580      1590      1600
ATTCTGGATGATATTCTCCAAAATTCAATTCAGTTATTATATTCATTTAGCATTAAGTCAAGGAGACTGAGAATGACTCAAGGGACGTCATAGTACCATA
TAAGACCTACTATAAGAGGTTTTAAGTTAAGTCAATAATATAAGTAAATCGTAATTCAGTTCCTCTGACTCTTACTGAGTTCCCTGCAGTATCATGGTAT

     1610      1620      1630      1640      1650      1660      1670      1680      1690      1700
GTTTTAAGGACCAAGGTGTGCCCAGAATTCAAGTTTCACAAATCCCAATGCTGTGCATTGATTATGTTCAACTTTATGTGTGCATTCTTAGAAGAGTAAG
CAAAATTCCTGGTTCCACACGGGTCTTAAGTTCAAAGTGTTTAGGGTTACGACACGTAACTAATACAAGTTGAAATACACACGTAAGAATCTTCTCATTC

     1710      1720      1730      1740      1750      1760      1770      1780      1790      1800
AACAAATAAAGTACACCGTAATATACATATAAATACATTCATGTTTGTGAGAGAAGGAAAGAGTAAGTAATTTGAATTGGCAGCTTTCTTTGCTAAATCT
TTGTTTATTTCATGTGGCATTATATGTATATTTATGTAAGTACAAACACTCTCTTCCTTTCTCATTCATTAAACTTAACCGTCGAAAGAAACGATTTAGA

     1810      1820      1830      1840      1850      1860      1870      1880      1890      1900
TTAAATTCTGTTAAGATCCTCAAGTAACTGGGGAGTACATGCTTTAGGACACAAACAAAAACAAAGGGCATGAAAGTATCTGAAAGCAATGTAGCACATA
AATTTAAGACAATTCTAGGAGTTCATTGACCCCTCATGTACGAAATCCTGTGTTTGTTTTTGTTTCCCGTACTTTCATAGACTTTCGTTACATCGTGTAT

     1910      1920      1930      1940      1950      1960      1970      1980      1990      2000
TCTATCGTAATATATGTAATATATTGACATAAAAGACACAAACTAATATAAAGTTATAGTTATATCTTAAAATATAATTGAAGAAGCATATGACATATAA
AGATAGCATTATATACATTATATAACTGTATTTTCTGTGTTTGATTATATTTCAATATCAATATAGAATTTTATATTAACTTCTTCGTATACTGTATATT

     2010      2020      2030      2040      2050      2060      2070      2080      2090      2100
CTTATAGAAATCAGTATCAATTCCTCCCATTTCAATTCAGTTAAGACTTCTGTGATAGATGTTTATAGCAGAGAAGAAATGTCTCATCAATAGGAAAACT
GAATATCTTTAGTCATAGTTAAGGAGGGTAAAGTTAAGTCAATTCTGAAGACACTATCTACAAATATCGTCTCTTCTTTACAGAGTAGTTATCCTTTTGA

     2110      2120      2130      2140      2150      2160      2170      2180      2190      2200
ATCAGATAAAGTTTAGGAGATAGGAAGAAGGACTGTGTGTAGTAATGAAAATACCAAGTTGCAACATTACATGTTTACAAAAAAAATCTGTGTTTGTAGT
TAGTCTATTTCAAATCCTCTATCCTTCTTCCTGACACACATCATTACTTTTATGGTTCAACGTTGTAATGTACAAATGTTTTTTTTAGACACAAACATCA

     2210      2220      2230      2240      2250      2260      2270      2280      2290      2300
GTGGAAGTTGGTGACTGTTTTAATCATCATCTAGACTTGTTAAGTAGAAAAATTTTAAAAATTTGCTTATGAAAATATAACCCCCAGAAAGTAACAATGA
CACCTTCAACCACTGACAAAATTAGTAGTAGATCTGAACAATTCATCTTTTTAAAATTTTTAAACGAATACTTTTATATTGGGGGTCTTTCATTGTTACT

     2310      2320      2330      2340      2350      2360      2370      2380      2390      2400
CAAAGTATTATATTTATATATATTATTGTAGAGAATTTGTATATTTTTAAAGATGTCTTAAGATATCTTAATTTTATTTATAAGTTTTGGTGTTTACCTG
GTTTCATAATATAAATATATATAATAACATCTCTTAAACATATAAAAATTTCTACAGAATTCTATAGAATTAAAATAAATATTCAAAACCACAAATGGAC

     2410      2420      2430      2440      2450      2460      2470      2480      2490      2500
TTTTAAAATGATAATGTTGGCATCTGTGATAAACTATCAATGAGGCTCCCATCATGCCATTTTTTGTTCATTTTAATCTTTAAAAAATAAAAATTAGGCA
AAAATTTTACTATTACAACCGTAGACACTATTTGATAGTTACTCCGAGGGTAGTACGGTAAAAAACAAGTAAAATTAGAAATTTTTTATTTTTAATCCGT

     2510      2520      2530
TATTAAAAAAAAAAAAAAAAAAAAAAAAAAA
ATAATTTTTTTTTTTTTTTTTTTTTTTTTTT
```

FIG. 2A

mouse CAP-1

```
        10        20        30        40        50        60        70        80        90       100
ATTCGGCACATGGGATCGAGGGACCATGCCGTTCCAGGTTCAAGGATAAAACCCATTGGGCCATAGTGCCGTCATATTCCACCTTCAGTGCCTTCCTCCA
TAAGCCGTGTACCCTAGCTCCCTGGTACGGCAAGGTCCAAGTTCCTATTTTGGGTAACCCGGTATCACGGCAGTATAAGGTGGAAGTCACGGAAGGAGGT

       110       120       130       140       150       160       170       180       190       200
CAATTGGGATTCACCCCTGCTGAAAAGCGCACGCTGACAGCAAGGGAACAAAAAACTATGCTATCACATAGTGCCATGGTGAAGCAAAGGAAACAGCAAG
GTTAACCCTAAGTGGGGACGACTTTTCGCGTGCGACTGTCGTTCCCTTGTTTTTTGATACGATAGTGTATCACGGTACCACTTCGTTTCCTTTGTCGTTC

       210       220       230       240       250       260       270       280       290       300
CATCAGCCATCACGAAGGAAATCCATGGACATGATGTTGACGGCATGGACCTGGGCAAAAAAGTTAGCATCCCCAGAGACATCATGATAGAAGAATTGTC
GTAGTCGGTAGTGCTTCCTTTAGGTACCTGTACTACAACTGCCGTACCTGGACCCGTTTTTTCAATCGTAGGGGTCTCTGTAGTACTATCTTCTTAACAG

       310       320       330       340       350       360       370       380       390       400
CCATTTCAGTAATCGTGGGGCCAGGCTGTTTAAGATGCGTCAAAGAAGATCTGACAAATACACCTTTGAAAATTTCCAGTATGAATCTAGAGCACAAATT
GGTAAAGTCATTAGCACCCCGGTCCGACAAATTCTACGCAGTTTCTTCTAGACTGTTTATGTGGAAACTTTTAAAGGTCATACTTAGATCTCGTGTTTAA

       410       420       430       440       450       460       470       480       490       500
AATCACAATATCGCCATGCAGAATGGAGAGTTGATGGAAGCAACCTGGAAGGTGGCTCACAGCAAGGCCCCTCAACTCCGCCCAACACCCCCGATCCAC
TTAGTGTTATAGCGGTACGTCTTACCCTCTCAACTACCTTCGTTGGACCTTCCACCGAGTGTCGTTCCGGGGAGTTGAGGCGGGTTGTGGGGGCTAGGTG

       510       520       530       540       550       560       570       580       590       600
GAAGCCCCCCAAATCCAGAGAACATCGCACCAGGATATTCTGGACCACTGAAGGAAATTCCTCCTGAAAGGTTTAACACGACGGCCGTTCCTAAGTACTA
CTTCGGGGGGTTTAGGTCTCTTGTAGCGTGGTCCTATAAGACCTGGTGACTTCCTTTAAGGAGGACTTTCCAAATTGTGCTGCCGGCAAGGATTCATGAT

       610       620       630       640       650       660       670       680       690       700
CCGGTCTCCATGGGAGCAGGCGATTGGCAGCGATCCGGAGCTCCTGGAGGCTTTGTACCCAAAACTTTTCAAGCCTGAAGGAAAAGCAGAACTGCGGGAT
GGCCAGAGGTACCCTCGTCCGCTAACCGTCGCTAGGCCTCGAGGACCTCCGAAACATGGGTTTTGAAAAGTTCGGACTTCCTTTTCGTCTTGACGCCCTA

       710       720       730       740       750       760       770       780       790       800
TACAGGAGCTTTAACAGGGTTGCCACTCCATTTGGAGGTTTTGAAAAAGCATCAAAAATGGTCAAATTCAAAGTTCCAGATTTTGAACTACTGCTGCTGA
ATGTCCTCGAAATTGTCCCAACGGTGAGGTAAACCTCCAAAACTTTTTCGTAGTTTTTACCAGTTTAAGTTTCAAGGTCTAAAACTTGATGACGACGACT

       810       820       830       840       850       860       870       880       890       900
CAGATCCCAGGTTCTTGGCCTTTGCCAATCCTCTTTCGGGCAGACGATGCTTTAACAGGGCGCCAAAGGGGTGGGTATCTGAGAATATCCCCGTCGTGAT
GTCTAGGGTCCAAGAACCGGAAACGGTTAGGAGAAAGCCCGTCTGCTACGAAATTGTCCCGCGGTTTCCCCACCCATAGACTCTTATAGGGGCAGCACTA

       910       920       930       940       950       960       970       980
CACAACTGAGCCTACAGAAGACGCCACTGTACCGGAATCAGATGACCTGTGAGAGGGAAGCTGGGGATGCCACAGGAAGTTC
GTGTTGACTCGGATGTCTTCTGCGGTGACATGGCCTTAGTCTACTGGACACTCTCCCTTCGACCCCTACGGTGTCCTTCAAG
```

FIG. 2B

human CAP-2

```
                                                                                                      100
CGGTCACAGC AGCTCAGTCC TCCAAAGCTG CTGGACCCCA GGGAGAGCTG ACCACTGCCC GAGCAGCCGG CTGAATCCAC CTCCACAATG CCGCTCTCAG
                                                                                                      200
GAACCCCGGC CCCTAATAAG AAGAGGAAAT CCAGCAAGCT GATCATGGAA CTCACTGGAG GTGGACAGGA GAGCTCAGGC TTGAACCTGG GCAAAAAGAT
                                                                                                      300
CAGTGTCCCA AGGGATGTGA TGTTGGAGGA ACTGTCGCTG CTTACCAACC GGGGCTCCAA GATGTTCAAA CTGCGGCAGA TGAGGGTGGA GAAGTTTATT
                                                                                                      400
TATGAGAACC ACCCTGATGT TTTCTCTGAC AGCTCAATGG ATCACTTCCA GAAGTTCCTT CCAACAGTGG GGGGACAGCT GGGCACAGCT GGTCAGGGAT
                                                                                                      500
TCTCATACAG CAAGAGCAAC GGCAGAGGCG GCAGCCAGGC AGGGGGCAGT GGCTCTGCCG GACAGTATGG CTCTGATCAG CAGCACCATC TGGGCTCTGG
                                                                                                      600
GTCTGGAGCT GGGGGTACAG GTGGTCCCGC GGGCCAGGCT GGCAGAGGAG GAGCTGCTGG CACACAGGGG GTTGGTGAGA CAGGATCAGG AGACCAGGCA
                                                                                                      700
GGCGGAGAAG GAAAACATAT CACTGTGTTC AAGACCTATA TTTCCCCATG GGAGCGAGCC ATGGGGGTTG ACCCCCAGCA AAAAATGGAA CTTGGCATTG
                                                                                                      800
ACCTGCTGGC CTATGGGGCC AAAGCTGAAC TTCCCAAATA TAAGTCCTTC AACAGGACGG CAATGCCCTA TGGTGGATAT GAGAAGGCCT CCAAACGCAT
                                                                                                      900
GACCTTCCAG ATGCCCAAGT TTGACCTGGG GCCCTTGCTG AGTGAACCCC TGGTCCTCTA CAACCAAAAC CTCTCCAACA GGCCTTCTTT CAATCGAACC
                                                                                                     1000
CCTATTCCCT GGCTGAGCTC TGGGGAGCCT GTAGACTACA ACGTGGATAT TGGCATCCCC TTGGATGGAG AAACAGAGGA GCTGTGAGGT GTTTCCTCCT
CTGATTTGCA TCATTTCCCC TCTCTGGCTC CAATTTGGAG A
```

FIG. 2C

mouse CAP-2

```
                                                                                                    100
GCCGGGGAGA GCCGACCACC AACTGAGCAG CTGGTCAGAT CCACCTCCAC CATGCCACGC TCAGGAACCC CGGCCCCTAA CAAGAGGAGG AAGTCAAGCA

                                                                                                    200
AACTGATTAT GGAGCTCACT GGAGGTGGCC GGGAGAGCTC AGGCCTGAAC CTGGGCAAGA AGATCAGTGT CCCAAGGGAT GTGATGTTGG AGGAGCTGTC

                                                                                                    300
CCTTCTTACC AACCGAGGCT CCAAGATGTT CAAGCTACGG CAGATGCGGG TGGAGAAATT TATCTATGAG AATCACCCCG ATGTTTTCTC TGACAGCTCA

                                                                                                    400
ATGGATCACT TCCAGAAGTT TCTTCCCACA GTGGGAGGAC AGCTGGAGAC AGCTGGTCAG GGCTTCTCAT ATGGCAAGGG CAGCAGTGGA GGCCAGGCTG

                                                                                                    500
GCAGCAGTGG CTCTGCTGGA CAGTATGGCT CTGACCGTCA TCAGCAGGGC TCTGGGTTTG GAGCTGGGGG TTCAGGTGGT CCTGGGGGCC AGGCTGGTGG

                                                                                                    600
AGGAGGAGCT CCTGGCACAG TAGGGCTTGG AGAGCCCGGA TCAGGTGACC AGGCAGGTGG AGATGGAAAA CATGTCACTG TGTTCAAGAC TTATATTTCC

                                                                                                    700
CCATGGGATC GGGCCATGGG GGTTGATCCT CAGCAAAAAG TGGAACTTGG CATTGACCTA CTGGCATACG GTGCCAAAGC TGAACTCCCC AAATATAAGT

                                                                                                    800
CCTTCAACAG GACAGCAATG CCCTACGGTG GATATGAGAA GGCCTCCAAA CGCATGACCT TCCAGATGCC CAAGTTTGAC CTGGGGCCTC TGCTGAGTGA

                                                                                                    900
ACCCCTGGTC CTCTACAACC AGAACCTCTC CAACAGGCCT TCTTTCAATC GAACCCCTAT TCCCTGGTTG AGCTCTGGGG AGCATGTAGA CTACAACGTG

                                                                                                   1000
GATGTTGGTA TCCCCTTGGA TGGAGAGACA GAGGAGCTGT GAAGTGCCTC CTCCTGTCAT GTGCATCATT TCCCTTCTCT GGTTCCAATT TGAGAGTGGA

                                                                                                   1100
TGCTGGACAG GATGCCCCAA CTGTTAATCC AGTATTCTTG TGGCAATGGA GGGTAAAGGG TGGGGTCCGT TGCCTTTCCA CCCTTCAAGT TCCTGCTCCG

AAGCATCCCT CCTCACCAGC TCAGAGCTCC CATCCTGCTG TACCATATGG AATCTGCTCT TTTATGGAAT TTTCT
```

FIG. 2D

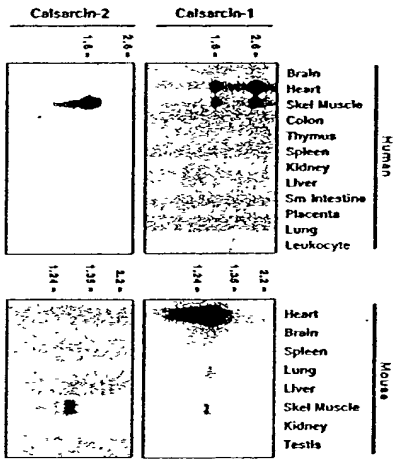

Calsarcin-2
Calsarcin-1
1.6 kb
2.6 kb
Brain
Heart
Skel Muscle
Colon
Thymus
Spleen
Kidney
Liver
Sm Intestine
Placenta
Lung
Leukocyte
Human
1.24 kb
1.35 kb
2.2 kb
Heart
Brain
Spleen
Lung
Liver
Skel Muscle
Kidney
Testis
Mouse

FIG. 3

FIG. 4A

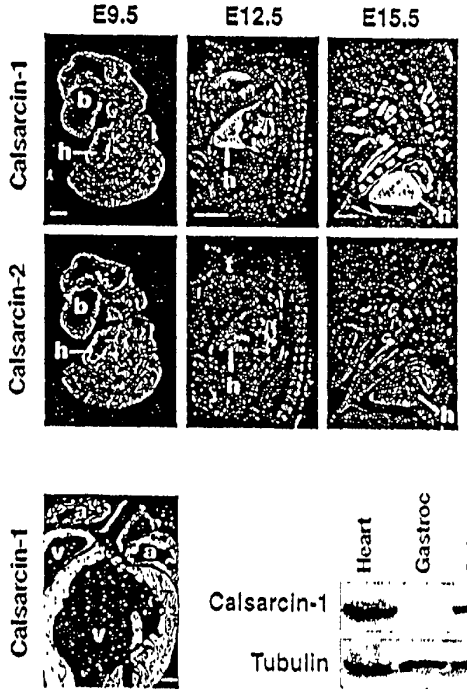
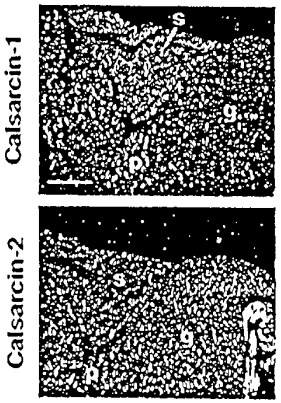


FIG. 4B

FIG. 4D

FIG. 4C



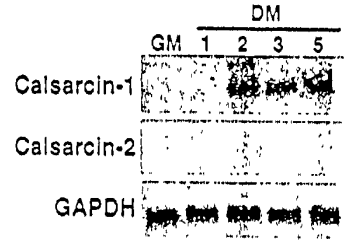


FIG. 4E


anti-calsarcin-1
anti-α-actinin
overlay

FIG. 5A

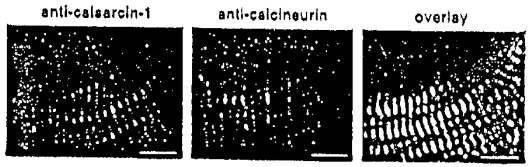

anti-calsarcin-1
anti-calcineurin
overlay

FIG. 5B

FIG. 6A

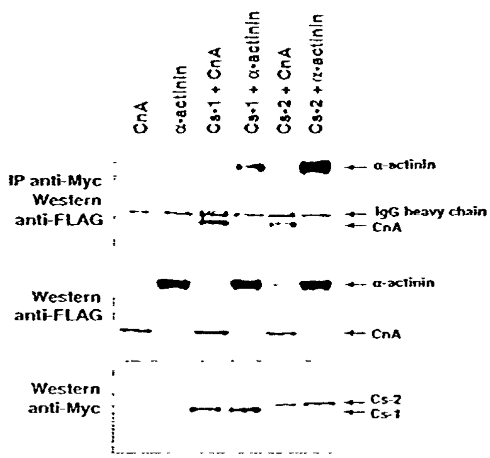


FIG. 6B

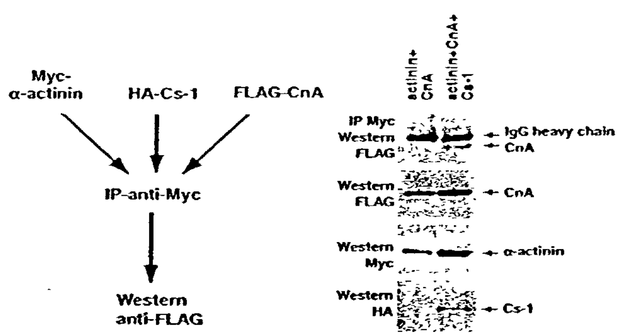
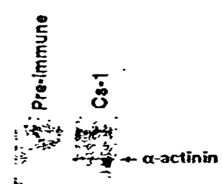


FIG. 6C



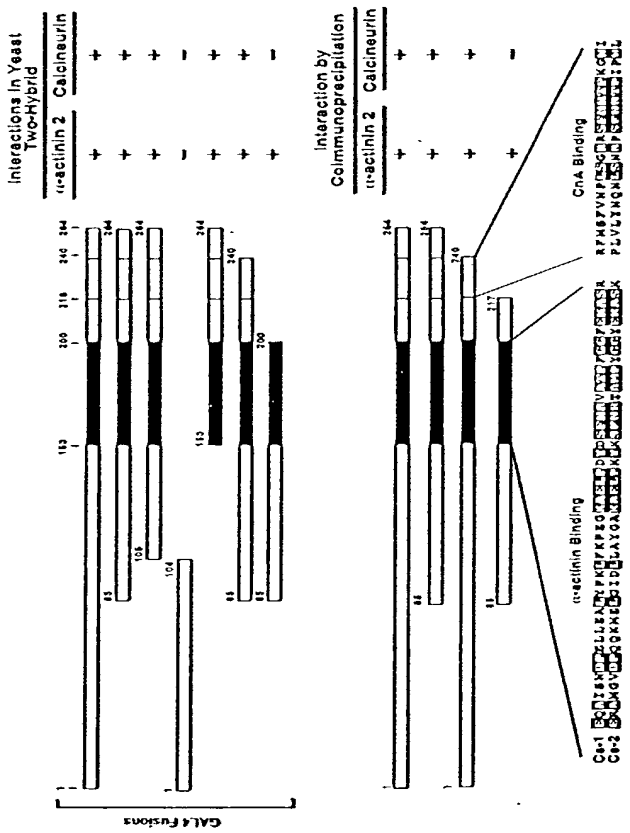

Interactions in Yeast Two-Hybrid
α-actinin 2
Calcineurin
GAL4 fusions
Interaction by Coimmunoprecipitation
α-actinin 2
Calcineurin
CnA Binding
α-actinin Binding

FIG. 7

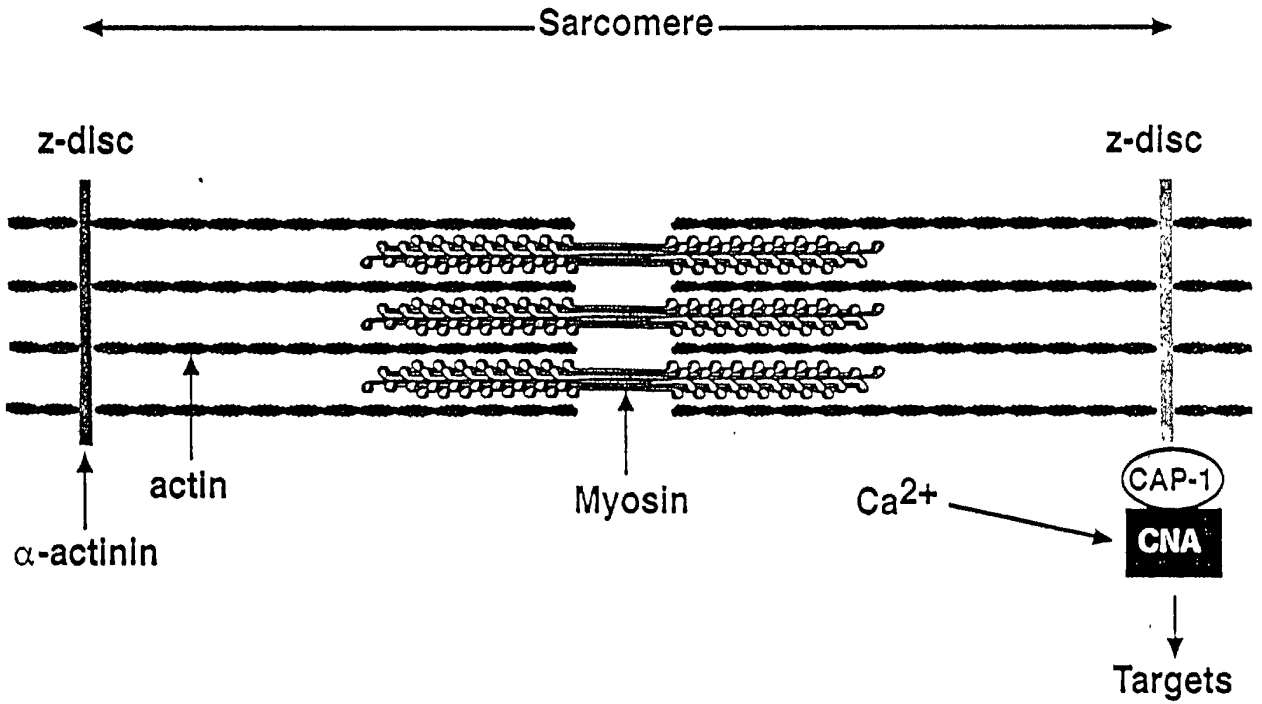

Sarcomere
z-disc
z-disc
actin
Myosin
α-actinin
Ca2+
CAP-1
CNA
Targets

FIG. 8

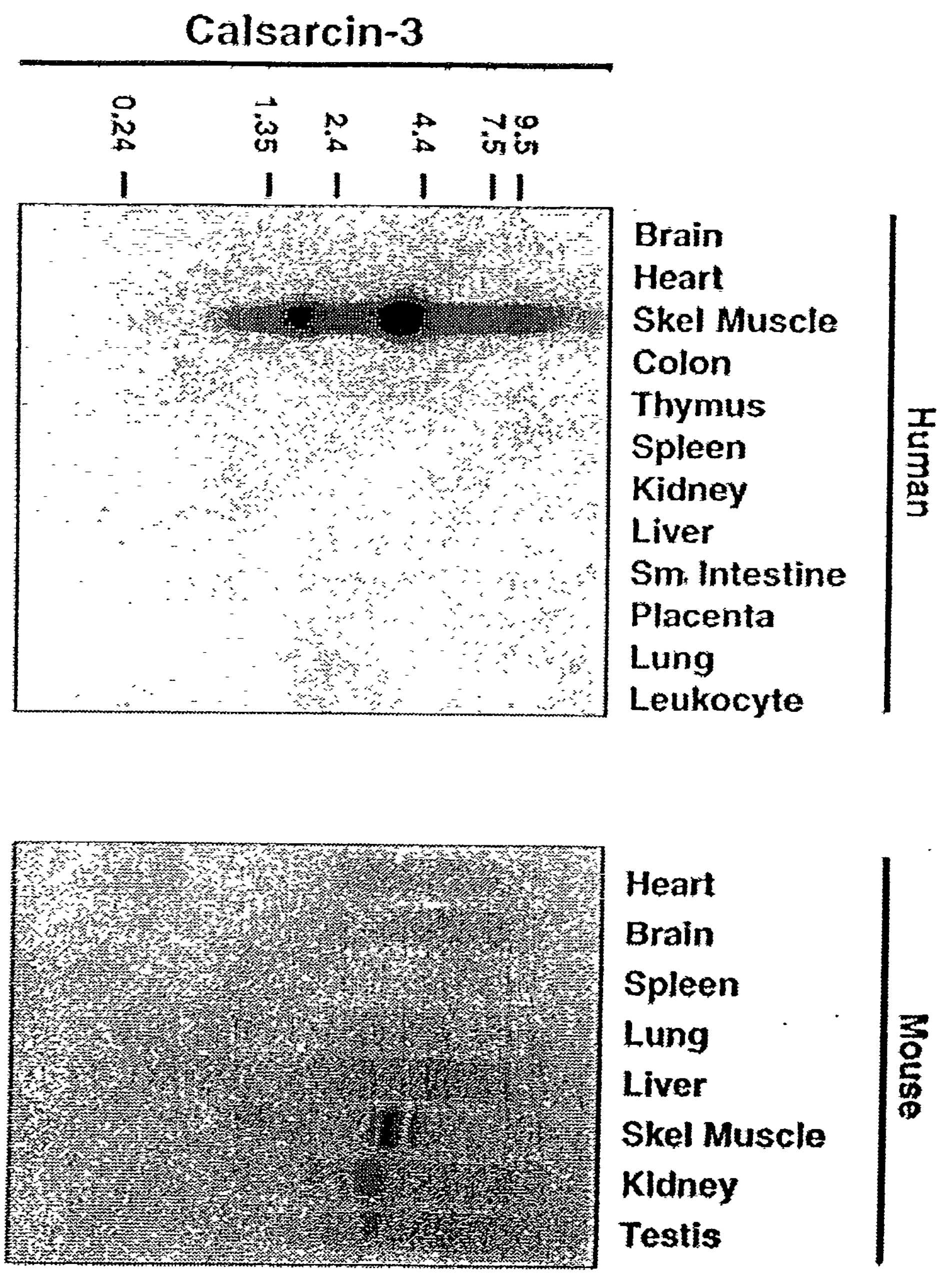

Calsarcin-3
0.24
1.35
2.4
4.4
7.5
9.5
Brain
Heart
Skel Muscle
Colon
Thymus
Spleen
Kidney
Liver
Sm. Intestine
Placenta
Lung
Leukocyte
Human
Heart
Brain
Spleen
Lung
Liver
Skel Muscle
Kidney
Testis
Mouse

FIG. 9

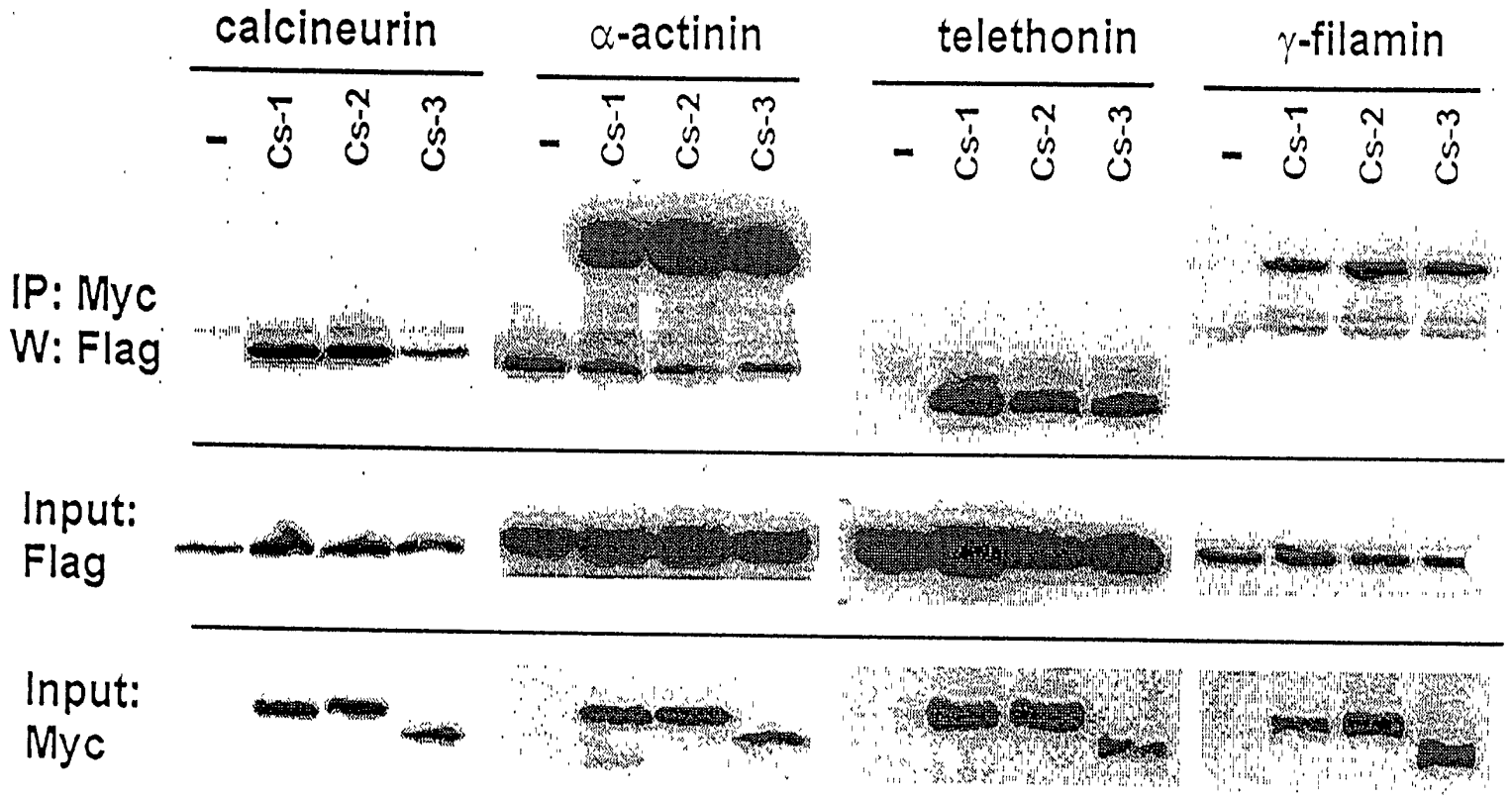

calcineurin
α-actinin
telethonin
γ-filamin
-
Cs-1
Cs-2
Cs-3
IP: Myc
W: Flag
Input:
Flag
Input:
Myc

FIG. 10

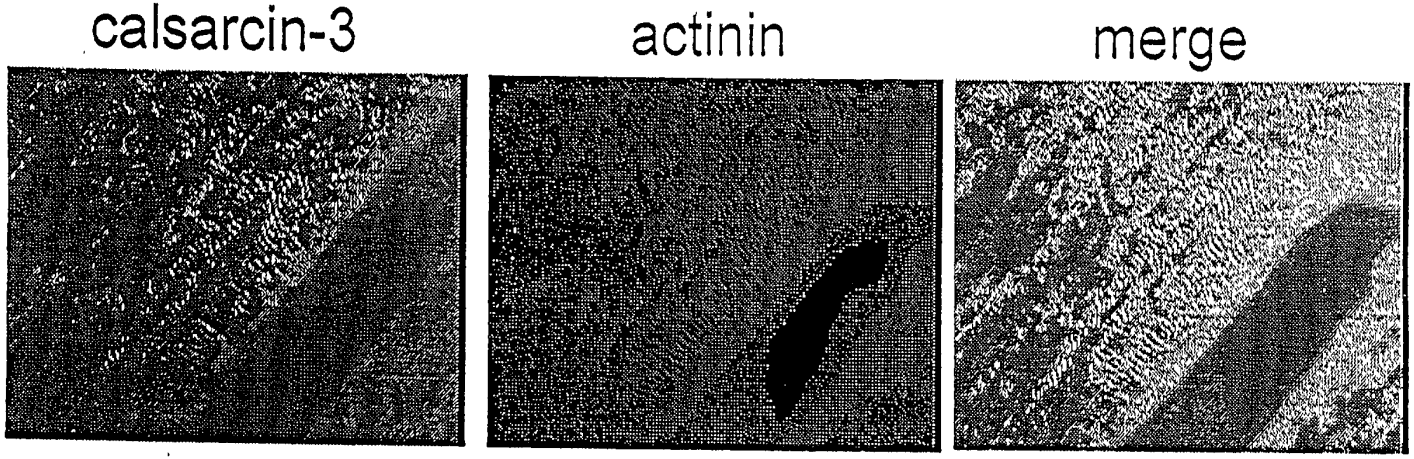
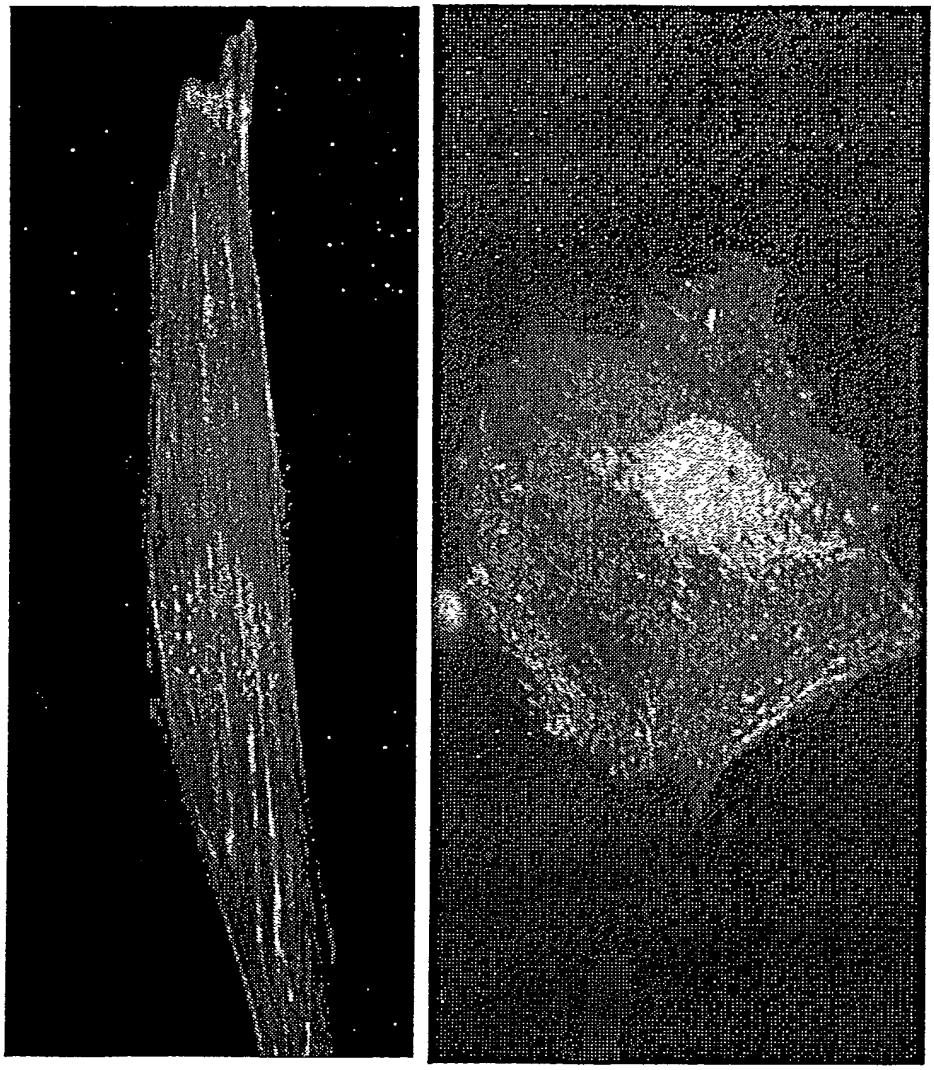


FIG. 11

FIG. 12



ClustalW Formatted Alignments

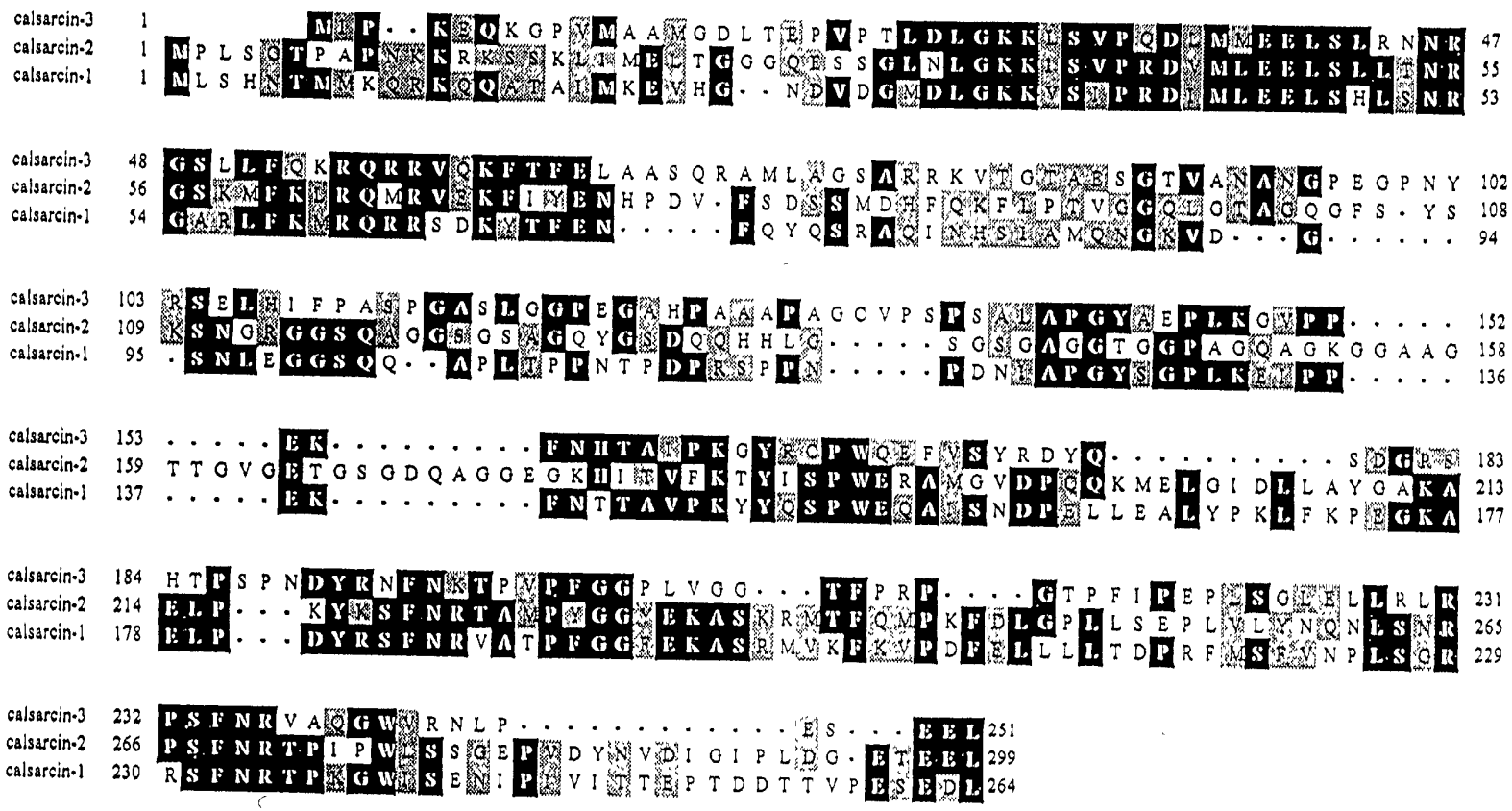


FIG. 13